

Dear Bob,

I enjoyed our phone conversation today and I am looking forward to trying your programs. As I'm sure you have discovered by now the Larken cartridge schematic is on page 12 of Sinc-Link volume 11, No. 2 (Mar-Apr 93). Perhaps what you were looking for was more of a picture of the circuit board. I will not mail this until after the first of the year when I have had a chance to make copies of my working sketches of the circuit board traces. If some one is interested in making circuit boards that will be useful. The trick in figuring out what the schematic is was to identify where the traces went under the chips on the chip side of the board. The dock board wasn't as complicated as the interface board. Share this around to see if we can get it right!

I have an IBM EPROM reader/burner that I used to duplicate the Larken EPROM. It also allowed me to bring all the code into one file. ASCII data files are easy to move between IBM and Larken.

As I said on the phone I haven't been able to verify my schematic for the interface board. I have examined and re-examined the Larken and I will enclose copies of what I think the circuit is. Hopefully someone else will see something that I have overlooked. My gut feeling is that the error or omission has to do with the crystal circuit. I am more mechanical than electrical so I don't have natural instincts in this area. I have also performed a pin to every other pin without uncovering my error. The NMI function works and the kempston I/F works. Sometimes I can activate the selected drive with it and sometimes not. I have made the circuit by soldering fine wire(wire-wrap) from point to point.

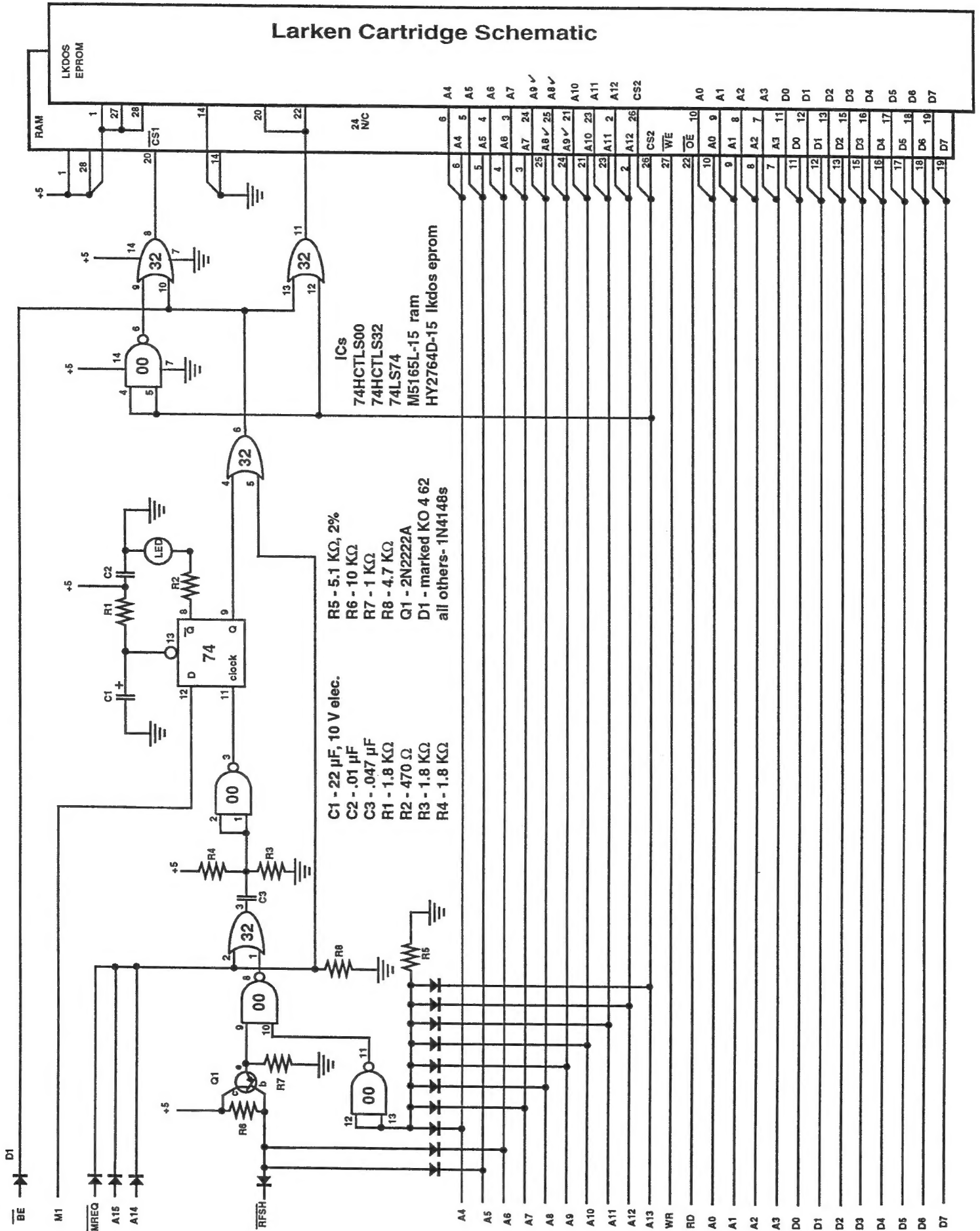
My primary system is a 2068 with Larken I/F, Spectrum on the dock board, RamDisk with 8 chips, old Radio Shack monitor and 13 inch color TV, Aerco parallel printer I/F, Canon bubble jet printer (or a 9-pin Epson for Pixel Print work). I have 2 5 1/4 360K and 1 3 1/2 drives connected. I have other Sinclair/Timex equipment that I don't use much.

My RamDisk autostarts to the Hello! menu system modified with the NMI-F automatic reboot and 'catalog a disk' function. MScript, diskmanager, Larken Disk Editor, FORMAT, COPY3, VuCalc with my gas mileage file, Tasword and Ken Shoenbergers disassembler are loaded in the RamDisk also. I move quickly between programs with the NMI-F reboot option. If I am using Speccy programs I use the miniboot menu system, also with NMI-F reboot. The NMI-F reboot option doesn't work on all Speccy programs but it does work on the majority I use. I have all my disks (95 5-1/4's and 20 3-1/2's) indexed with Bob Mitchell's disk index program.

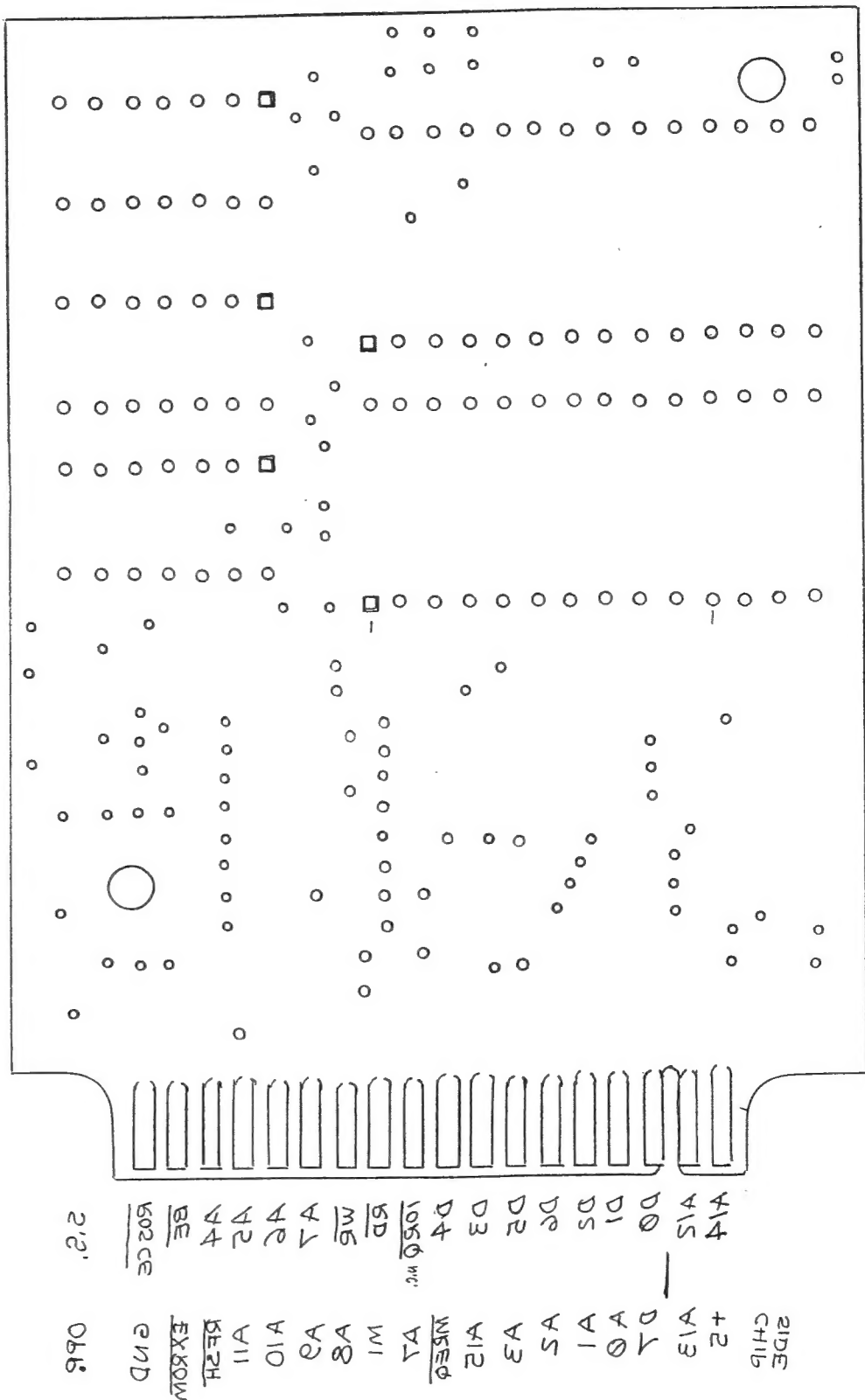
Les Cottrell

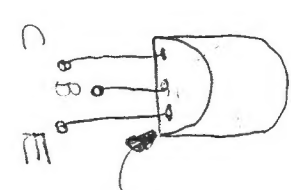
LESTER S. COTTRELL JR.
108 RIVER HEIGHTS DRIVE
COCOA, FL 32922

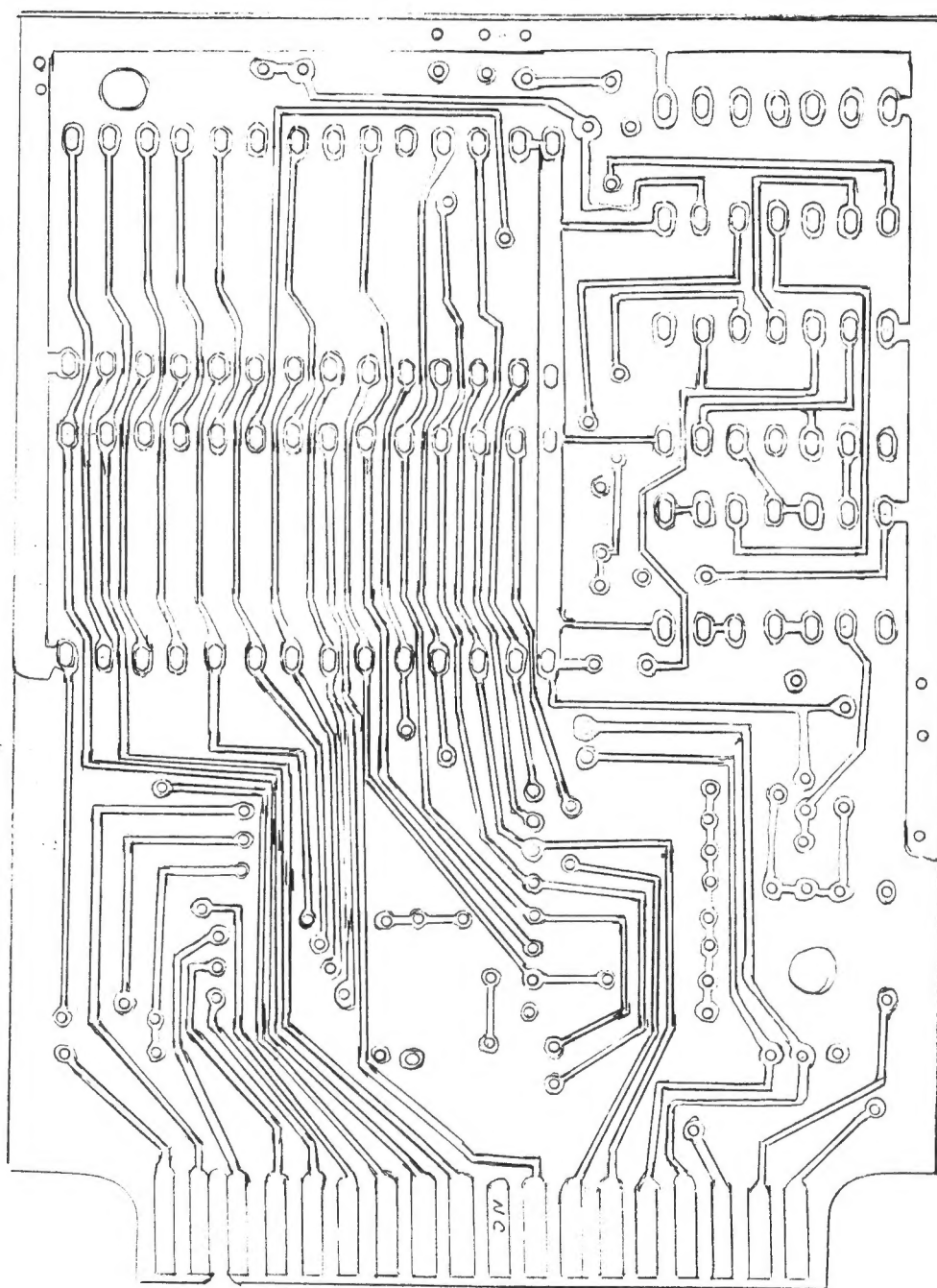
Larken Cartridge Schematic



CHIP SIDE
SOLDER SIDE





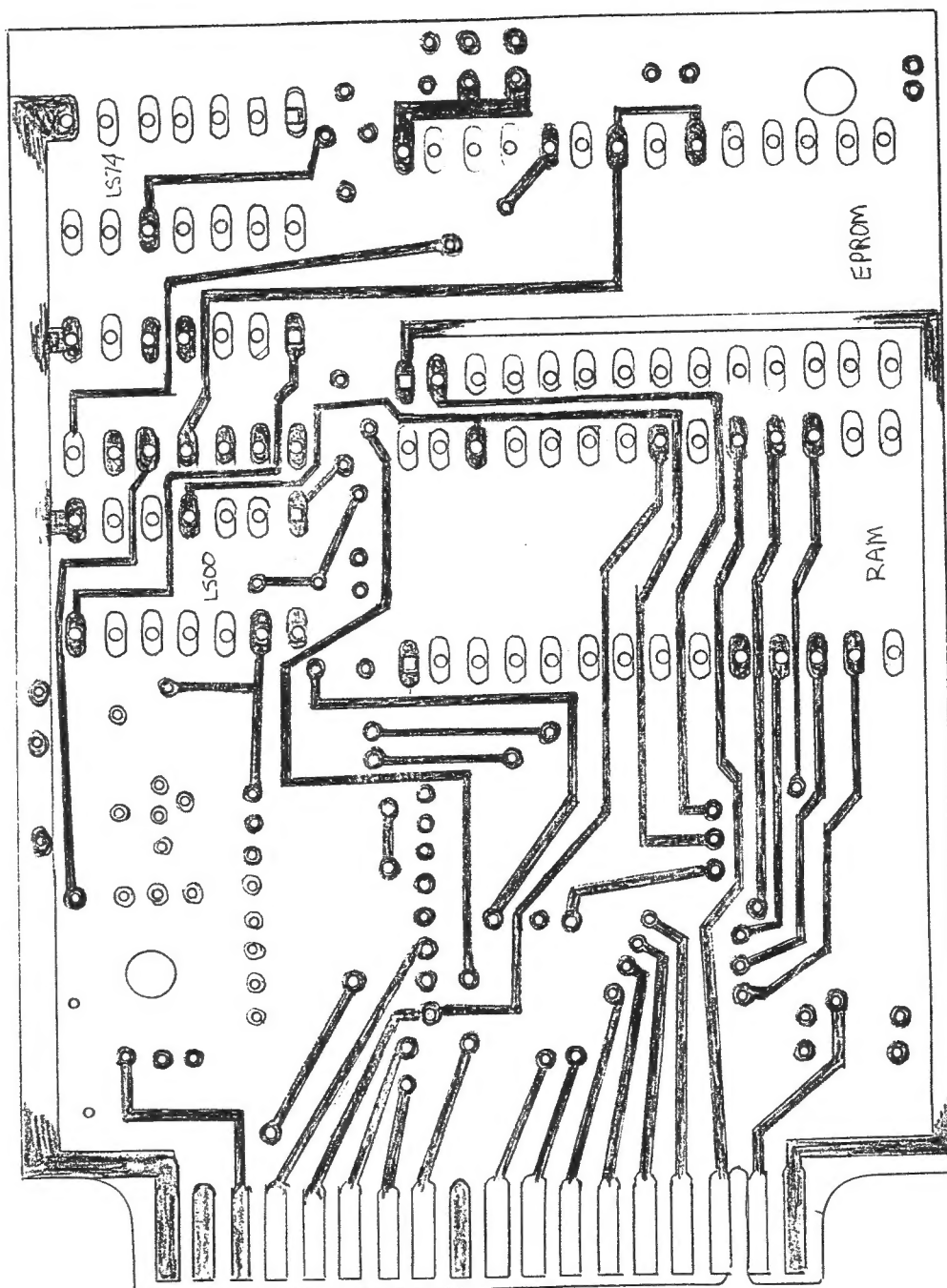


SOLDER SIDE

R05 CE
BE
A4
A5
A6
A7
WR
RD
10R0
D4
D3
D5
D6
D2
D1
D0
A12
A14

CHIP SIDE

207DEB 21DE



996	2'2'
END	502 CE
EXBOM	BE
BEZH	174
11A	172
01A	174
8A	171
1M	156
1A	1056 m.c.
WSEB	D4
1712	D3
EA	D2
SA	D0
1A	D1
0A	D0
70	1A
1A	1A
2	1A

215E
CH16

$$\frac{A}{w}$$

02

144

45

Δw

$$\frac{1}{n}$$

五

MI

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2

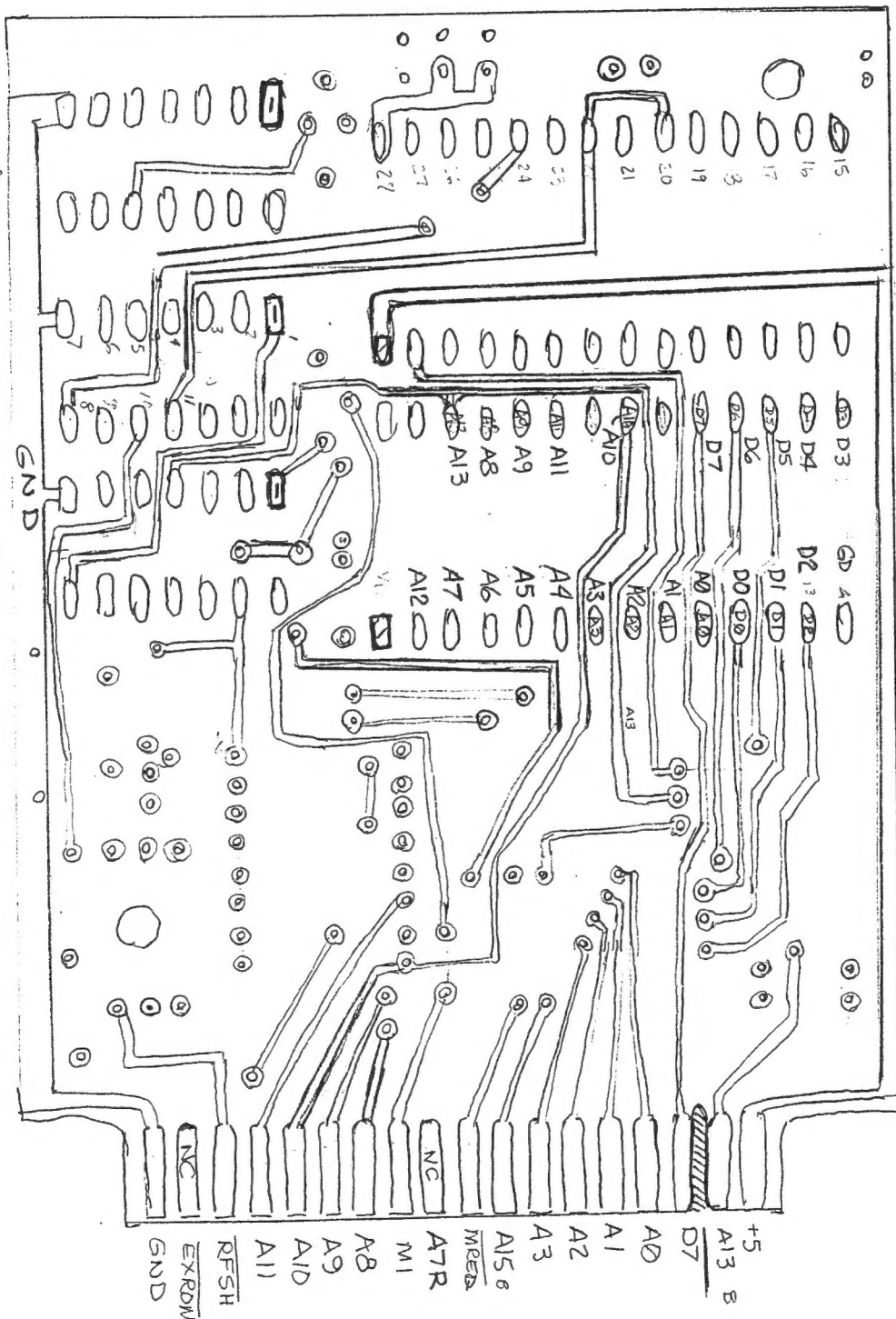
01A

275

EX-5

25

CH



D2764A
 EPROM
 LKDOE

RAM
 MS1655
 2027

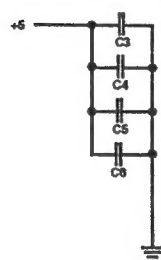
74LS74

74HCTLS0

TOP
 CHIP SIDE
 (20 PINS SIDE)

+5
 A13 B
 D7
 A0
 A1
 A2
 A3
 A15 6
 M1
 A7R
 NC
 A8
 A9
 A10
 A11
 RF5H
 EXRDM
 GND

NOT YET
VERIFIED



between 174 & disk connector

diodes 1N4148

C1	102	.001μF
C2	471	.00047μF (470pF)
C3,C4,C5,C6	104	.1μF
C7	22μF, 10v	

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